

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims

1. (currently amended) Spring device for a vehicle seat, ~~in particular a utility vehicle seat~~ having comprising at least one air spring arranged between a seat part and a lower part for the height adjustment (5) of the seat part and ~~having~~ a control device for controlling the supply and discharge of at least one additional air volume to or from the air spring, ~~characterized in that~~ wherein at a selectable run in and/or run out position (8, 9) of the air spring, ~~the additional~~ an air volume [[that]] can be supplied or discharged ~~can be changed or switched off by~~ means under control of the control device such that inclines in the profile of a force-path air spring characteristic (1; 1a, 1b, 1c) of the air spring in a first and in at least one further range (2, 3, 4) are different from one another.
2. (original) Spring device according to Claim 1,
~~characterized in that~~
in the range (3, 4) of the force-path air spring characteristic (1; 1a, 1b, 1c) the vibration-damping additional air volume that can be supplied or discharged is greater or smaller than in the first range (2) or is completely switched off.
3. (original) Spring device according to Claim 1,
~~characterized in that~~

the additional air volume in the further range (3, 4) can be supplied to or discharged from the air spring in each case in a number of stages, preferably in three stages.

4. (original) Spring device according to Claim 1,
c h a r a c t e r i z e d b y
at least one pneumatic directional control valve for supplying/discharging the additional air volume(s).
5. (currently amended) Spring device according to Claim 1, further comprising
~~c h a r a c t e r i z e d b y~~
~~an adjustment device~~ for the automatic height adjustment of the seat part at the start of a use operation by a user having a predefined weight ~~by means of~~ wherein air ~~[[being]]~~ is supplied to or discharged from the air spring under control of the control device such that the air spring adjusts to a central position (7) in the first range (2) of the force-path air spring characteristic (1; 1a, 1b, 1c).
6. (currently amended) Spring device according to Claim 5, further comprising
~~c h a r a c t e r i z e d i n t h a t~~
~~the first adjustment device comprises~~ a regulator switch that is arranged in the region of ~~[[the]]~~ an armrest of the vehicle seat.
7. (original) Spring device according to Claim 1,
c h a r a c t e r i z e d i n t h a t

the first range (2) within the force-path air spring characteristic (1; 1a, 1b, 1c) can be displaced by means of an operating device by the user and by means of the control device such that the seat part is adjusted to the desired height.

8. (currently amended) Spring device according to Claim 1, further comprising
~~characterized by~~
a recognition device for recognizing a user using the vehicle seat, ~~in particular by means of~~ by his weight.
9. (original) Spring device according to Claim 1,

c h a r a c t e r i z e d i n t h a t

the additional air volume that can be supplied and discharged is greater than 0.1 l in the first range (2) of the force-path air spring characteristic (1; 1a, 1b, 1c) and is either 0.0 l or greater than 0.0 l in the further range.
10. (original) Spring device according to Claim 1,

c h a r a c t e r i z e d b y

recognition and switching devices (8a, 9a) for recognizing the selectable run in and run out positions (8, 9) of the air spring and for switching the spring device to supply and discharge the changeable additional air volume by means of the control device.

11. (currently amended) Method of springing a vehicle seat, ~~in particular a utility vehicle~~
seat having at least one air spring arranged between a seat part and a lower part for the
height adjustment (5) of the seat part, comprising the steps of ~~and having a control device~~
~~for automatically~~ controlling the supply and discharge of at least one additional air
volume to or from the air spring, so that
~~characterized in that~~
when the air spring exceeds a predefinable run in and/or run out position (8, 9), the
additional air volume that can be supplied or discharged is changed or switched off ~~by~~
~~means of the control device~~ in order to change in a further range (3, 4) an incline in the
profile of a force-path spring characteristic (1; 1a, 1b, 1c) with respect to a first range (2).
12. (currently amended) Method according to Claim 11, further comprising the step of
recognizing
~~characterized in that~~
the exceeding of the predefined run in and run out position (8, 9) of the air spring is
~~recognized by means of recognition and switching devices (8a, 9a) and the spring device~~
~~is switched by means of the control device to the changeable additional air volume for the~~
~~further range (3, 4).~~
13. (currently amended) Method according to Claim 12, wherein
~~characterized in that~~

~~in the event of switching of the spring device,~~ the changeable additional air volume is supplied to the air spring only when ~~the recognition means and switching devices (8a) in a first end of travel region are activated on account of~~ there is vibration, regularly and at a high frequency by the air spring moving in and out.

14. (cancelled)

15. (currently amended) Method according to Claim 11, wherein

~~characterized in that~~

in the event of insufficient vibration damping in the end of travel regions of the air spring with respect to a residual travel path, the changeable additional air volume is reduced towards one end of travel until a sufficient damping of the air spring is achieved without touching of the end of travel by an air spring lifting cylinder.